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### Arguments

Claims 1-14, and 22-28 are pending in this application. Applicants have amended the claims in order to clarify them. For at least the reasons stated below, applicants believe that all claims are in condition for allowance as they are not obvious over the cited references.

**1. The cited references do not teach or suggest the limitations of claim 2.**

Applicants assert that claim 2 (and corresponding claim 9 and 23) is allowable, despite the fact that the former examiner repeatedly ignored applicants' request for clarification for the claim 2 rejection. After the current amendment, which seeks to clarify the claim, claim 2 reads:

"A method as recited in claim 1, wherein the service provider data structures include data concerning contracting the manufacturing service providers for manufacturing services."

As the claims and specification state, the invention in claims 1 and 2 is a method to find service providers that can be contracted for manufacturing and manufacturing management. Pages 8, 9 and 10 of the specification discuss such manufacturing services, and state that pharmaceutical companies who need to purchase certain chemical compounds may use the invention's method to find service providers who may be contracted to manufacture those chemical compounds (see page 8, lines 16 to 23). Some of the service providers may also be contracted for their manufacturing services related to the manufactured chemicals, such as "process design", "route optimization", "analysis" services, "legal raw materials" services, "regulatory" services, etc. (see page 8, lines 29 to 31). The present invention leverages a database having information about various contract manufacturing organizations ("CMOs") (page 8, lines 8-13). The database is used to "post information concerning contract manufacturing organizations' capabilities surrounding contract manufacturing" such as "technologies, processes, equipment, etc." (page 9, lines 23-28).

Claim 2 limits the type of service providers that are stored on the invention's database to only those service providers who can be contracted for their manufacturing services. As just discussed, such contracted manufacturing services may be process design

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services, route optimization services, regulatory services, etc. The former examiner's rejection of this claim has been very confusing. Applicants have now amended claim 2 to clarify its Intent.

In the first office action (dated 6/11/2002), the former examiner rejected claim 2 on the basis that: "Sheflott teaches ... the step of matching the user to a service provider includes optimization services (Fig 3/101/100/90)." Turning to the elements in Sheflott that were cited by the former examiner (i.e., elements 101, 100 and 90 in figure 3) one sees that element 101 is labeled "develop financials & pricing", element 100 is labeled "financials database" and element 90 is "good match?". These elements do not teach a data structure having information about service providers who can be contracted for their manufacturing services.

To understand the cited elements one must first understand the Sheflott invention as a whole. Sheflott teaches a method for "generating responses to questionnaires" (col.1, lines 5 and 6), used by health insurance companies in responding to Requests for Proposals ("RFPs") (col. 5, lines 37 to 40). Such an RFP "contains a questionnaire with a large number of questions to be answered by the health insurance company" (col. 5, lines 58 to 60). One of the first steps of responding to an RFP is shown in figure 3, which starts by determining whether the company's employees (i.e., those who will be using the services of the health insurance policies) are geographically located near the "doctors and other health care providers that are associated with the proposed [health] plan" such that the employees and the health plans appear to be a good match (col. 6, lines 55 to 61, describing figure 3).

Element 90 (cited by the former examiner) determines whether it appears that the location of where the employees live is a good match to the location of the health care providers that are part of the potential health plan. If so, then a financial database (element 100) is used by element 101 to develop financial and pricing information that is used in deciding whether or not the health insurance company should respond to the questionnaire with a quote for its health insurance policies (col. 7 lines 32 to 39, describing element 101). Sheflott's figure 3 does not teach or suggest providing manufacturing or manufacturing management services under a contract, as is required by the claims. The database 100 stores financial information, not manufacturing services provided by each of a plurality of service providers, as required in the claims. Figure 3 does not deal with manufacturing services as specifically required in claim 2. Therefore, applicants respectfully submit that Sheflott neither teaches nor suggests all of the limitations found in claim 2.

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In his second office action, the former examiner rejected claim 2 under a combination of teachings from Sheflott, Tibbetts and Flores, by stating that:

"Sheflott teaches ... the step of matching the user to a service provider includes optimization services (Fig 3/101/100/90). Tibbetts teaches coordinating actions between proposal and any consumer, which leads to optimizations (Fig 6/603)(Fig 7). Flores teaches workflow management and workflow schedule processing (Fig 2) and performance optimization (Fig 1) and satisfaction optimization (Fig 3)."

The former examiner said that it would have been obvious to combine these references within a contract manufacturing environment, with the motivation to combine being: "analyzing and structuring business processes that provides clients with the requisite tools to manage these businesses efficiently as enunciated by Flores".

Thus, for the second time, claim 2 (which is directed to a data structure for holding data about providers who can be contracted for their manufacturing services) was rejected on the basis of a teaching of "optimization services" which allows efficient management of businesses. Regrettably, this rejection does not make logical sense to applicants since claim two is concerned with information in a database about "manufacturing services", such as for manufacturing chemicals and other mixtures. In applicants' response (May 23, 2003), applicants again pointed out the contents of claim 2 and stated that "the contentions by the Examiner [that this claim is about optimization services] ... do not bear on claim 2 as written".

As discussed above, Sheflott does not teach or suggest the necessary limitations of claims 1 or 2. Now the contents of Tibbetts and Flores will be discussed and shown to be likewise irrelevant (alone or in combination). The former examiner relied on figure 6 (element 603) and figure 7 from Tibbetts in rejecting claim 2. As previously discussed in the 5/19/2004 response, Tibbetts' invention provides a computer toolset to create objects to provide data and function mapping as an interface between the user interface (front-end) and the transactional back-end system (such as a database system) (col. 3, line 60 - col. 4, line 9). The Tibbetts patent uses the term "proposal", but this term is given a specialized meaning in this patent and is not the type of real-life proposal that might be the result of an RFP or that might be sent to a contract manufacturer.

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As Tibbetts' Summary of the Invention states: "an object called a 'Proposal' that is independent from the user interface front-end and the transaction processor back-end" is created and this way of using Proposal objects ensures that the system "is aware of its own hierarchical structure and is able to preserve data validity" (col. 1, lines 60 to 67). The Proposal object "includes not just the data mapping behavior, but other useful transaction-formation behaviors such as document navigation, error and annotation-handling, and versioning" (col. 4, lines 17 to 19). Thus, a "proposal" as defined and taught in Tibbetts is actually a data object stored in a computer system that contains document handling information. This is shown in figure 6 as element 603 in that drawing is a User Interface Coordinator and does such things as "prompts for next entry", "displays next page" and "populates hierarchic viewers" (text shown in element 603).

Figure 7 also shows that Tibbett's use of 'proposal' is for a data object in a computer system. Figure 7 shows is a "lifecycle of a Proposal object according to the invention" (col. 2, lines 58 and 59). In this lifecycle, a

"developer 701 defines the Proposal Specification 702 15 using the Proposal Specification Builder 703. All Proposal Specifications 704 that are defined are placed in a repository 705 which holds all of the possible specifications for a Proposal [object]. A user 706 selects the appropriate Proposal Specification 20 for the desired type of Proposal from the repository 705. The Proposal [object] is created through the Proposal Factory 707 and a Proposal 708 is made available to all users 706, 709. The users can add, change, and annotate data to the Proposal [object] 708. Proposal updates are submitted to the DBMS or TP monitor 710. If any errors occur in the updates, error messages are added to the Proposal [object] 708." (col. 5, lines 20 to 25)

The Examiner has relied on Tibbetts' teaching of "coordinating actions between proposal and any consumer, which leads to optimizations", but this is not the purpose of the "Proposal Object" taught by Tibbetts, and furthermore such a Proposal object does not teach or suggest a way to provide access to a database of providers of manufacturing services, including a database having a data about providers who can be hired under contract for their manufacturing services.

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Moving on to Flores, the former examiner held that it teaches "workflow management and workflow schedule processing (Fig 2) and performance optimization (Fig 1) and satisfaction optimization (Fig 3)." Without going into the details of Flores, applicants assert that it even if Flores does teach "workflow management, ... workflow schedule processing ... performance optimization ... and satisfaction optimization", such a teaching fails to teach or suggest what is required in claim 2, namely a database having data about providers that can be hired through a contract for their manufacturing services related to their manufacturing.

After applicants presented its arguments to the former examiner that a combination of Sheflott, Tibbetts and Flores cannot teach or suggest all of the limitations of claim 2, in his third office action (6/17/2003), the former examiner retreated to his earlier rejection and held that Sheflott on its own teaches claim 2 because "Sheflott teaches a method ... wherein the step of matching the user to a service provider includes optimization services (Fig 3/101/100/90)." However, previously the examiner had implicitly admitted claim 2 cannot be rejected based solely on Sheflotts when he changed his rejection to bring in Sheflotts in combination with Tibbetts and Flores. Furthermore, for the third time, the former examiner did not explain why he feels teaching optimization services reads on "data structures [with] data concerning providers of manufacturing services under a contract". In its response to this third office action, applicants pointed out for the third time that the former examiner has not explained why he believed "optimization services ... have any bearing on claim 2" since claim 2 is not about optimization services, but is about data structures holding information about various companies that provide manufacturing services.

In both his fourth office action (11/3/2003) and fifth office action (2/19/2004), the former examiner maintained his rejection of claim 2, stating simply that "Sheflott teaches ... the step of matching the user to a service provider includes optimization services (Fig 3/101/100/90)." In neither of these office actions did the former examiner explain how figure 3 in Sheflott is similar to a database with data structures for various companies that can be contracted to provide manufacturing services of specialized chemicals. In his sixth office action (9/1/2004), which is now before us, the former examiner simply said that "The rejections as cited in the non-final office action are ... maintained."

As a result of these six office actions, the applicants are presently in the position of defending claim 2 against a nonsensical rejection of Sheflott's teachings in figure 3

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(elements 101, 100 and 90). Again, this portion of Sheflott determines whether the company's employees (i.e., those who will be using the services of the health insurance policies) are geographically located near the doctors are associated with the proposed health plan such that the employees and the health plans appear to be a good match, and if so, then using a financial database to develop financial and pricing information that is used in deciding whether or not the health insurance company should respond to the questionnaire with a quote for its health insurance policies (col. 7 lines 32 to 39, describing element 101). Applicants continue to assert that this teaching does not teach or suggest what is claimed in claim 2, namely: "data structures include data concerning contracting the service providers for manufacturing services".

Applicants have asked repeatedly for the former examiner to explain his reasoning in more detail. The former examiner failed his examination duty. The MPEP states that "to provide a complete application file history and to enhance the clarity of the prosecution history record, an examiner must provide clear explanations of all actions taken by the examiner during prosecution of an application" MPEP § 707.07(f) (emphasis added). Furthermore, "the examiner should, if he or she repeats the rejection, take note of the applicant's argument and answer the substance of it" MPEP § 707.07(f). In response to applicants' requests for clarification, the former examiner has stated that the Applicant's arguments have been fully considered but they are not persuasive. This cursory response does not "include a rebuttal of any arguments raised in the Applicant's reply" or clearly develop the grounds of rejection "to such an extent that applicant may readily judge the advisability of an appeal" as required by MPEP § 706.07. Accordingly, the former examiner in his office action has failed to establish a valid final rejection, and applicants respectfully request a rebuttal to the above arguments that claim 2 does not relate to "optimization services". In the alternative, applicants request concession of the above arguments and allowance of claim 2 (and corresponding claims 9 and 23).

**2. The claims should be allowed because there is no proper motivation to combine the five references.**

In the first office action the former examiner rejected the primary independent claim under 35 USC § 103(a) as unpatentable over Sheflott in view of Tibbetts and further in view of Flores. These same references were the basis of the 103(a) rejection in the second and third office actions by the former examiner. In response to applicants' amendments and

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arguments the former examiner extended the 103(a) rejection in the fourth office action by stating that the claim was unpatentable over Sheflott in view of Tibbetts in view of Flores and in further view of Elance.com.

In their fourth response, the applicants amended the independent claims and argued that a combination of the four references would not include all of the limitations in the claims. In his fifth office action, the former examiner rejected the independent claims with a chain of five references, namely Sheflott in view of Tibbetts in view of Flores in view of elance.com and in further view of Ettl. Applicants responded and argued that there was no proper motivation to combine these five references by simply chaining them together and therefore the rejection was improper and should be withdrawn.

In the present office action, the former examiner has maintained the rejections, stating that the arguments are not persuasive and asserting new motivations to combine the references. Applicants continue to assert that the former examiner can show no valid motivation to combine the five references and therefore the rejections to the independent claims should be withdrawn.

**A. The Five References have merely been strung together in order to reject the claims.**

As was presented in applicants' 5/19/2004 response, Applicants oppose the 103(a) rejection of the independent claims because the rejection does not form a *prima facie* case of obviousness. Applicants have support for their argument by the *Rouffet* decision, where in 1998 the Court of Appeals for the Federal Circuit reversed an examiner's § 103 rejection that was issued by simply stringing together a series of prior art references, which the Court characterized as a "prior art mosaic." *In re Denis Rouffet, et al.*, No. 97-1492, 1998 WL 400169 (Fed. Cir.).

The Rouffet court was not surprised that the examiner was able to show a combination of references that contained all of the claim elements since "virtually all inventions are combinations of old elements." *Id.* If the Examiner only had to identify each claimed element in the prior art, then "very few patents would ever issue" since an Examiner could merely "use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention." *Id.* Using the claim as such a blueprint is an "illogical and inappropriate process by which to determine patentability." *Id.* (citing *Sensonic, Inc. v. Aerosonic Corp.*, 38 USPQ2d 1551, 1554 (Fed. Cir. 1996)).

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In 2004, the CAFC again addressed this same issue of how merely linking together references is not a proper way to show a motivation to combine. The CAFC held in the *Ruiz* case that an improper obviousness rejection might "break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious." *Richard Ruiz et al. v. A.B. Chance Co.*, No. 03-1333 (Fed. Cir., 2004). The "as of whole" requirement of § 103 prohibits such a form of "hindsight reasoning, using the invention as a roadmap [or blueprint] to find its prior art components" improper. *Id.*

This is directly on point with the present application. Here, the former examiner created his § 103 obviousness rejection by breaking applicants' invention into its component parts (A + B + C + D + E) and asserting five references to support the various components. Each time that the applicants were successful in pointing out that a combination of references do not teach the applicants' invention, the former examiner merely tacked on another reference - going from 3 references to 4 references and then to 5 references. Stringing together these five prior art references into a "prior art mosaic" is the same procedure that was overturned by the CAFC in both *Rouffet* and *Ruiz* and is therefore improper.

**B. The Rationale for Combining the Five References is not Adequate**

Finding prior art references to cover each of the limitations in the claims is just a first step of a 103 rejection. In *Rouffet*, the CAFC acknowledged that the Board did not err when it found that the combination of the references contained all of the elements of the claims in the application. The problem found by the CAFC was that there was not an adequate showing that one skilled in the art would have been motivated to combine those references.

The Examiner "must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*. In *Rouffet*, the Board did not explain what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination. Instead, the Board merely relied on the assertion that one skilled in the art would have a high level of skill and thus would recognize the ability to combine the references. The CAFC rejected this, stating that if "such a rote invocation could suffice to supply a motivation to combine, the more sophisticated scientific fields would rarely, if ever,



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experience a patentable technical advance." *Id.* Instead, the "Board could routinely identify the prior art elements in an application, invoke the lofty level of skill, and rest its case for rejection." *Id.*

Applicants are faced with a similar rejection: the Examiner does not offer a legitimate rationale for the combination of the five references that are directed to five distinct problems. Reviewing the references one finds the following problems that were trying to be solved by each reference:

Reference	Problem to Solve	Support within Patent
Sheflott	Provides a system enabling quick, consistent and accurate <b>response to a request for information</b> , such as an RFP	Summary of the Invention (col. 3, lines 59-61)
Tibbetts	Provides a computer toolset to create objects to <b>provide data and function mapping</b> as an interface <b>between the user interface</b> (front-end) <b>and the transactional back-end system</b> (such as a database system).	Detailed Description of the Invention (col. 3, line 60 - col. 4, line 9). Note: the abstract uses the term "Proposal", which is given a specialized meaning in this patent and is not the type of proposal that an RFP from Sheflott
Flores	Provides a business with <b>tools to manage its business processes</b> by notifying the user that she has a task to complete, provide her with the tools and information to complete the task, allow her to see where the task fits in the overall process, and manage reminders to keep the process moving, etc.	Abstract
Elance.com	Provides an online marketplace for a small business to <b>outsource projects</b> (such as web development, graphic design, software, engineering, business strategy) <b>to a pool of people providing such services</b> .	<a href="http://www.elance.com/c/static/main/displayhtml.pl?file=about.html">http://www.elance.com/c/static/main/displayhtml.pl?file=about.html</a>
Ettle	<b>Provides an inventory management system</b> that determines stocking levels for an inventory control mechanism	Summary of the Invention (col. 2, lines 58-65)

The above table shows the vast differences among the problems solved by the five references. Especially noteworthy is Tibbetts. The Tibbetts invention is a data mapping technique between a computer interface and a back-end computer system. The Sheflott invention was concerned with a system for delivering Requests for Proposals for a health

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care company. The problem of data mapping and the problem of responding to an RFP would not be something combined by one in the art. Ettle offers a solution to determining stocking levels for a store's inventory. One would not consider combining inventory calculation systems with a system that assists with providing answers for an RFP nor with a system that offers a solution to data mapping between a computer interface and a backend system. All five references are directed to solving five distinct problems and so the Examiner cannot "show reasons that the skilled artisan, confronted with the same problems" would combine the references", as required by *In re Rouffet*.

Investigating the office action, one finds little meaning to the Examiner's reasons to combine the references. First, the Examiner states that the motivation to combine Sheflott, Tibbetts and Flores is "to teach an architecture that takes advantage of the generic properties permitting it to be reusable for new types of transactions as enunciated by Tibbetts (col 1 lines 53-56)". As shown in the above table and discussed above, the problem solved by Tibbetts was a system for providing a toolset of items with "generic properties" for use in an architecture to provide data mapping between an interface and a backend system. The Examiner's statement suggests that Tibbetts can be reused for any new type of transactions. A careful reading of the reference shows that the reusability is solely limited to building new data mapping objects each time a developer needs to connect an interface with a backend system. The uses contemplated by the Applicants' invention is not something that Tibbetts can be reused for.

Then the Examiner asserts that it would have been obvious to one skilled in the art at the time of the invention to combine the first three references with Elance.com and Ettle to teach Applicant's invention because the "motivation to combine is to teach a system for analyzing and structuring business processes in a manufacturing production environment for monitoring inventory management in the presence of constrained capital budgets as enunciated by Ettl (col 2, lines 41-44)" (19 February 2004 Office Action, page 5). A system to monitor inventory and a system that provides a user with reminders and scheduling of business processes would not be combined. Furthermore these could not be combined to offer the type of system offered by the Applicants' invention. Here the inventor has simply used the key words of Elance.com ("analyzing and structuring business processes") with the key words of Ettl ("monitoring inventory management") and combined them in a single phrase even though a total reading of the references supports just how different the two inventions are.

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In contrast to the above problems, Applicants' Invention is directed to the problem of finding a service provider for manufacturing services, where the invention accepts a user's request, returns information on the service provider that best matches the request along with a hyperlink so that the user can access additional information about the service provider. Furthermore, the invention verifies budget constraints and as long as the budget isn't exceeded, allows the user to place an order for the manufacturing services.

To repeat again, by comparing the above table to the problem solved by the present invention, one can see that, for example, Tibbetts is directed to the very different problem of mapping data between a front-end and back-end computer system, and that Flores is directed to business project management rather than to a type of system for matching service providers to requests. A person skilled in the art searching for a solution to matching service providers to requests for manufacturing services would not consider combining the five references, especially since one reference is directed to using objects to map data from a computer front-end system to a computer back-end system, and another reference is directed to ensuring business processes are managed by notifying a user that she has a task to complete, providing her with the tools and information to complete the task, allowing her to see where the task fits in the overall process, and managing reminders to keep the process moving, etc.

The Examiner's has not shown reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed, as required by *Rouffet* since the five cited references are directed to five distinct problems. Therefore, the Examiner has failed to make his *prima facie* case of obviousness and the 35 USC § 103 rejections should therefore be withdrawn. Using the claim as a blueprint to chain together the five references in hindsight is an "illogical and inappropriate process by which to determine patentability." *Rouffet*.

### 3. The Amendments do not require a further search.

Applicants assert that the present amendments to the claims do not require any further searching on behalf of the newly assigned patent examiner. The amendments merely clarify what was already in the claims and already searched by the former examiner.

In the independent claim (using claim 1 as an example), the term "contract" was clarified with the phrase "that can be contracted" and the compound term "manufacturing

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and management services" was clarified by forming to compound nouns "manufacturing services" and "manufacturing management services", as is shown here:

**Original preamble of claim 1:**

contract manufacturing and management services

**Amended preamble of claim 1:**

manufacturing services and manufacturing management services that can be contracted

Element (a) was clarified by changing "service provider" to "manufacturing service provider" to better mimic the preamble's terms "manufacturing services" and "manufacturing management services". In addition, the "contracting" limitation of the services was clarified by the phrase "that can be contracted for".

Elements (b), (d), (f) and (h) have "service provider" changed also to "manufacturing service provider".

Claim 2's term "contract service providers" was clarified by using the phrase "contracting the service providers for manufacturing services".

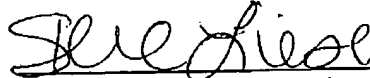
**4. Summary**

Since the rejections to the independent claims have been addressed, applicants submit that all pending claims are in condition for allowance. Applicants respectfully request reconsideration of the claims and ask that a Notice of Allowance be issued in this case. In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at 612-607-7508. If any fees are due in connection with the filing of this paper, then the Commissioner is authorized to charge

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such fees including fees for any extension of time, to Deposit Account No. 50-1901  
(Attorney Docket # 060021-358401).

Respectfully submitted,



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